

APPENDIX 1

Table 1: Opportunities and Barriers to implementation of a Forest Health Strategy for Washington State

Table 1 outlines the most feasible opportunities for implementing a forest health strategy for Washington State along with barriers that may arise for each opportunity. The barriers are arranged into the following categories: economic, social, educational, human relations, institutional, regulatory, environmental, scientific, and administrative. While not an exhaustive list, the majority of concerns raised during working group deliberations are included. The table assists ranking opportunities for funding and implementation. In particular, some barriers do not require funding, but do require a fundamental rearrangement of organizational practices among affected entities (agencies, organizations, and individuals) can be modified while procurement of necessary funding is obtained.

	Opportunities							
Barriers	Prescribed Fire	Thinning	Education	Technical Assistance	Incentives	Cooperative Agreements	Community agreements	Include non-market values
Costs	Not feasible on small parcels	Non-merchantable costs may override merchantable volume	Recent loss of FTE's needs to be addressed as well as ramping up to meet FH	Recent loss of FTE's needs to be addressed as well as ramping up to meet FH	Estimates of \$200/ac for sm diameter removal; \$100/ac/yr for overstory retention	Reduced protection fee assessments with participation?	Not all participants are 'equal' due to funding limits on private participation	Inclusion in risk equations clearly shifts balance toward treatment
Loss of sustainable economic return	Regen is destroyed during repeated overstory maintenance burns							Quantifying non-market values and/or establishing markets (eg carbon or water) may be required
Lack of markets		Adds to cost issue						Increases the non-market component of cost reduction
Lack of capacity (FTE's, people, skill sets, funding)	We are losing our skill set in prescribed fire.	Need to extend knowledge for site specific treatments	Need increased funding to provide education	Need increased funding to provide tools and train the trainers	Allocation of scare funds should be ranked by effectiveness. Competitive bidding might be most effective	Need DNR policy person to work with other agencies and organizations to meet strategic plan goals	Community interests may not be sufficiently represented without funding mechanisms	Research on non-market values and how to implement is needed

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Loss of infrastructure to use by-products of FH treatments		Small diameter wood processing capacity is scarce	What information is needed to restore declining infrastructure?		What incentives would be effective to improve infrastructure?			
Liability exposure	All groups face high risk with prescribed burn	Lawsuits discourage thinning treatments on federal land	Include insurance companies as part of the mix	Include insurance companies as part of the mix	Include insurance companies as part of the mix		Does participation increase liability exposure?	
Parcelization (land ownership pattern)	Small landowners find prescribed fire cost prohibitive and administratively difficult		Hard to reach small landowners	Hard to motivate some owners even if they can be reached			Harder to include contiguous tracts in any planning effort	
Regulatory uncertainty (i.e. no long term assurances)		Sustainable economics requires periodic income			incentives will not producematching investments with uncertainty	Does participation garner any benefits given statutory limits on decision making?		
Lack of education on the benefits	Beneficiaries may not be aware of either benefits or their costs	Beneficiaries may not be aware of either benefits or their costs					x-	Institutional focus on symptoms vs prevention (eg. fire fighting vs allocation to education/tech assistance)
Fire cooperation has declined and new technology needs to be added			Need new technology tools, training of trainers, and to increase the number of trainers	Need more trained extension capacity and consultants				
Licensing inadequate training of consulting groups				Poor assistance can be worse than no assistance I.e. litigation & loss of				
Lack of trust	x-	x-		Teamwork needed to avoid the regulatory backlash	Incentive programs here today and gone tomorrow		x-	

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Extensive time lag in building necessary relationships			Door to door selling may be required	Door to door selling may be required		x	Door to door selling may be required	
Diverse management goals		Not all entities chose to manage for reduced risk to mature stands	Can facilitate a landscape level approach	Can facilitate a landscape level approach		Can facilitate a landscape level approach	Can facilitate a landscape level approach	
Social acceptability including executive support					Increased fees for non-treatment - especially for small landowners	Relates to mechanism between gov't's (state, fed, tribe). Executive allocation of scarce resources determines effectiveness	Will local input be sufficient to override urban votes	
Statutory issues						Limited authority but can increase cooperation		
Institutional procedures			Technology and tools are needed as well as education on stewardship	Technology and tools are needed to support tehncial assistance	Funding is locked into reactive rather than preventive paradigms	Basis for stronger partnerships needs development given the statutory decision making limits?	Process for coming to agreement	Need to look for new accounting mechanisms
Regulations	RMZ/owl circle protection. Smoke caps.	Rmz/owl circle protection						
Implementation of regs	Unintended consequences	Unintended consequences			Alt Plan framework			Integrated valuation
Forest Practice Permit issues		Salvage of even a few trees involves significant \$/time				Streamlining of permitting process		
Proximity to human populations	Smoke and fire escape risk	Risks of arson/accidental fire. Better chances for use of materials			\$200/acre to encourage removal of non-merchantable material		quantify the definition of community and the 'reach' into the forest of community groups	

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Clean air act implementation	Remove the '0' tolerance approach and allow federal guidelines to prevail							
Hot fires (i.e. damaging fires because of high fuel loads)	Risk too high until ladder fuels are removed							
Smoke	Especially close to urban centers							
Lack of science on specific prescriptive strategies		Site specific density and composition thresholds needed	Site specific density and composition thresholds needed	Site specific density and composition thresholds needed				
Uniformity in application of rules/monitoring				Need data that is consistent across ownership/landscape	assessment needed for fairness and effectiveness. Competitive bidding could contribute to both.		Different communities have dif't limits for treatment boundaries	
Lack of spatial data	Harder to prioritize	Harder to prioritize	Harder to establish need	Harder to prioritize	Harder to enforce		x	
Lack of inventory data	Can't design reliable treatments	Can't design reliable treatments	Can't design reliable treatments	Can't design reliable treatments	Can't qualify		x	Can't measure values